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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/625,891

07/26/2000

Yuji Tsujimori

1934.64567

8030

24978

7590

03/26/2003

GREER, BURNS & CRAIN  
300 S WACKER DR  
25TH FLOOR  
CHICAGO, IL 60606

EXAMINER

GROSS, KENNETH A

ART UNIT

PAPER NUMBER

2122

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/625,891

Applicant(s)

TSUJIMORI ET AL.

Examiner

Kenneth A Gross

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In regard to Claims 1-3 and 5-7, the term "thread-piece-wise" is unclear. It is interpreted to mean that multiple threads utilize the interface area. In regard to Claims 2 and 6, the term "performing a reference" is unclear. It is interpreted to mean, "referencing the interface area". In regard to Claims 4 and 8, the term "designation" is unclear. Does this mean that the user determines when to activate said code generating means, or does this mean that further input is provided by the user said code generating means is performed. The term is interpreted to mean that further input is provided by the user said code generating means is performed.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Holzle et al. (U.S. Patent Number 6,209,066).

In regard to Claim 1, Holzle teaches a multi-threaded (Column 7, lines 50-53) virtual machine that makes use of a dynamically allocated interface area (Column 7, lines 32-36). Included in the system is a compiler device (Figure 13, item 1120), which generates bytecode containing methods that get called in a program (Column 22, lines 30-62). Claim 5 corresponds directly with Claim 1, and is rejected for the same reasons as Claim 1.

#### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.


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6. Claims 2-4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over "C: The Complete Reference, Third Edition", by Herbert Schildt, 1995 (hereinafter Schildt) in view of Holzle et al. (U.S. Patent Number 6,209,066).

In regard to Claim 2, Schildt teaches that C has a function "void \*malloc(size\_t size)", which allocates a section of memory from the system stack (Chapter 5 – "Pointers", Section – "'C's Dynamic Allocation Functions"). The function returns, and hence generates, the address of an interface area that was dynamically generated and saves the address in a pointer. In the source code, a pointer with a pseudonym, and not the address of the interface area itself represents the interface area. When the pointer is made reference to in the source code, the compiler converts it from a source code reference into the address allocated dynamically by malloc(), which is code that performs a direct reference to the interface area (Chapter 5 – "Pointers", Section – "The Pointer Operators". Schildt does not teach that the interface area is used <sup>by</sup> multiple threads. *gm* Holzle, however, teaches a multi-threaded (Column 7, lines 50-53) virtual machine that makes use of a dynamically allocated interface area (Column 7, lines 32-36). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to develop a compiler device with a code generating means for generating code for determining the address of a dynamically generated interface area, and a code converting means for converting a reference to the interface area in the source program to code for performing the reference to the interface area, as taught by Schildt, where the dynamically generated interface area is used by multiple threads, as taught by Holzle, since this allows multiple threads to use an interface area generated only once. Claim 6 corresponds directly with Claim 2 and is rejected for the same reasons as Claim 2.

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In regard to Claim 3, the address-generating function malloc() is defined in the library stdlib.h, and call this library when the malloc() function is run (Chapter 5 – “Pointers”, Section – “C’s Dynamic Allocation Functions”). Claim 7 corresponds directly with Claim 3 and is rejected for the same reasons as Claim 3.

In regard to Claim 4, the address-generating function malloc() takes a designation of size as an argument to the function to determine how many bytes are to be dynamically allocated. The user must designate this size. Claim 8 corresponds directly with Claim <sup>4</sup> and is rejected for the same reasons as Claim <sup>4</sup>. 

### *Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

O'Farrell et al. (U.S. Patent Number 5,655,101)

Iwasawa et al. (U.S. Patent Number 6,253,371)

Jourdenais et al. (U.S. Patent Number 5,381,550)

Tanaka et al. (U.S. Patent Number 5,437,034)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth A Gross whose telephone number is (703) 305-0542.

The examiner can normally be reached on Mon-Fri 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A Morse can be reached on (703) 308-4789. The fax phone numbers for the

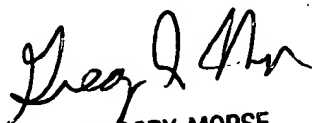
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organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

KAG

March 11, 2003

  
GREGORY MORSE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100